

Claims

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3 1. Piezoelectric element with a multilayer structure of piezoelectric plies (4)
4 having electrodes (6, 7; 21, 22) arranged between them, and having
5 - a lateral contacting of the electrodes (6, 7; 21, 22) in alternate directions
6 via external electrodes (9, 10), wherein
7 - the individual piezoelectric plies (4) are composed of a continuous film (2;
8 20) that can be folded during manufacture, that are entirely or partially
9 provided with the electrically conductive electrodes (6, 7; 21, 22).
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11 2. Piezoelectric element according to Claim 1, characterized in that
12 - the film (2; 20) for producing the electrodes (6, 7; 21, 22) is entirely or
13 partially metallized, that
14 - the piezoelectric plies (2; 20) are formed by folding at notches (5, 5.1, 5.2)
15 created at specified intervals transverse to the direction of folding, wherein
16 the internal electrodes (6, 7; 21, 22) are formed by the metallized layers
17 lying inside the notches (5, 5.1, 5.2) after the folding, and the metallized
18 layers are interrupted on the outside of the notches (5, 5.1, 5.2), and that
19 - the internal electrodes (6, 7; 21, 22) are contacted with the external
20 electrodes (9, 10) on the insides of the notches (5, 5.1, 5.2) projecting
21 outward after the folding.
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23 3. Piezoelectric element according to Claim 2, characterized in that
24 - only every other surface between the notches (5, 5.1, 5.2) is metallized in
25 each case, at least on one side of the film (20).
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27 4. Piezoelectric element according to Claim 2 or 3, characterized in that
28 - the external electrodes (9, 10) are composed of an electrically conductive
29 screen or net.
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31 5. Piezoelement according to Claim 2 or 3, characterized in that

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- 1 - an electrically insulating head and foot plate (11, 12) composed of
- 2 piezoelectric ceramic are installed on the external piezoelectric plies (4)
- 3 before sintering.
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